

REMARKS

Claims 1-6, 8, 10-14, 16-19, 24-26, 28-34, 36-41, 43-47, 53-59, and 61-68 were rejected in an Office Action dated May 26, 2009. Claims 1, 16, 24, 32, 33, 41, 53, 58, and 66 have been amended. Support for the amendments may be found in the "Detailed Description of the Invention." Applicants respectfully request reconsideration of the present application in view of the following remarks.

Rejections under 35 USC 103(a) – Unpatentable over Kershner in view of Maples

Claims 1-6, 8, 10-14, 16-19, 24-26, 28-34, 36-41, 43-47, 53-59, and 61-68 were rejected under 35 USC 103(a) as being unpatentable over Kershner et al. (US 4,824,916, hereinafter "Kershner") in view of Maples (US 6,395,383, hereinafter "Maples").

Applicants assert that in the Office Action dated November 13, 2007, it was stated that the "rejection made in view of Maples and Kershner et al. have been withdrawn because Maples teaches away from the use of polyamides as used in Kershner et al., so one of ordinary skill in the art at the time [of] the invention was made would not have combined the two aforementioned references." However, the current claims are now being rejected in view of the same references. It is not clear to Applicants how the current rejection differs sufficiently to overcome the clear teaching away. No additional evidence has been presented, therefore Applicants respectfully assert that insufficient evidence of the motivation necessary to prompt one skilled in the art to modify Kershner, in view of Maples, has been presented to overcome the clear teaching away in Maples. Therefore, a prima facie case of obviousness has not been established. Moreover, Applicants respectfully traverse the rejection in view of the newly amended claims and the following remarks

Independent claims 1 and 24 have been amended solely to expedite prosecution of the instant application by providing that the sulfonated aromatic polymer comprises specific linkages. Independent claim 41 recites specific polymer units not disclosed in the cited references. Applicants respectfully assert that the claims are patentable over the cited art. None of the references disclose or suggest a chemical protective covering comprising a laminate that is a composite of an ePTFE membrane (claim 1) or a fabric layer (claim 24), and a

sulfonated aromatic polymer where a portion of the aromatic groups have both a pendant sulfonic acid (or salt) and a linkage selected from the group consisting of ketone, sulfone, sulfide, and ether. This is distinct from both references where neither disclose or suggest the claimed polymer having the claimed repeating groups or the claimed sulfonic acid equivalent weight. Moreover, Kershner does not disclose or suggest the claimed resistance to permeation by 2-CES.

Independent claim 66 has been amended to claim a chemical protective article of apparel or enclosure for use in reducing exposure to chemicals comprising a laminate comprising a layer of apparel fabric or porous or microporous substrate laminated to a polymer that has a sulfonic acid equivalent weight of about 400-800 (IEC: 1.25-2.5 meq/g), and that consists essentially of sulfonated polyethersulfone, sulfonated polyetherether ketone, sulfonated polyphthalazinone ether ketone, or blends thereof, and has the claimed permeation resistance to PMF. Kershner does not disclose the claimed polymer, the claimed sulfonic acid equivalent weight, or the claimed permeation resistance. Maples does not remedy the deficiencies where Maples does not teach the claimed sulfonated polymer.

Specifically, with regard to claim 53, neither reference teaches the claimed method of reducing chemical exposure. Since neither reference teaches the claimed sulfonated aromatic polymer and claimed level of sulfonic acid, the references cannot render the claimed method obvious where the claimed benefits of low 2-CES permeation, conferred by the claimed polymer, could not have been recognized and therefore, could not be obvious. That which is not known cannot be obvious.

The claims are rejected over the combination of Kershner in view of Maples, despite the fact that, as stated in the current Office Action (page 4), Kershner fails to teach, among other things,

- 1) the instantly claimed sulfonic acid equivalent weight,
- 2) the claimed moisture vapor transmission rate,
- 3) permeation to 2-CES or,
- 4) the specific use as vapor porous membrane on a textile base.

No additional objective evidence is presented beyond these two references to supply adequate motivation to modify Kershner in view of Maples. And in view of the deficiencies (above) of Kershner, Maples is heavily relied upon in the current Office Action to provide the motivation despite the withdrawal of the

previous grounds for rejection. Maples is cited in the Office Action (page 5), for example, as follows: Maples is in the same field of endeavor as Kershner (selectively permeable articles); Maples teaches a selectively permeable covering capable of transmitting high quantities of water vapor; the selectively permeable composition of Maples is applied to PTFE; the garment of Maples may further comprise external facing fabric; the article of Maples has an MVTR of greater than 2000g/m²/day (page 5, Office Action). These are all features that Kershner fails to teach; thus, the proposed motivation to modify Kershner has been constructed from the teachings of Maples.

Specifically, it is stated that the motivation set forth in the Office Action is that it would have been obvious to have taken the sulfonated aromatic polymer of Kershner and *applied it to a fabric layer* of Maples “motivated by the desire to form a protective garment as in Maples” (Office Action, page 6). Applicants traverse this ground of rejection for several reasons. First, some of the claims recite in part, for example, a fabric laminate consisting essentially of the claimed sulfonated aromatic polymer laminated to at least one layer of apparel fabric (claim 24), or a fabric laminate comprising apparel fabric and a composite consisting essentially of the claimed sulfonated aromatic polymer between two layers of ePTFE (claim 41), and thus, would not read on a disclosure requiring the chemical layer recited in Maples.

Second, as stated above, a rejection based on the combination of Kershner and Maples has been previously made and removed in view of the clear teaching away in Maples. Thus, the current position that the motivation to modify Kershner is “*the desire to form a protective garment as in Maples*” is contrary to the clear record of this application.

It has been stated that it is improper to combine references where the references teach away from their combination (In re Grasselli, 713 F.2d 731, MPEP 2145). It has also been stated that the totality of the prior art must be considered, and proceeding contrary to accepted wisdom in the art is evidence of nonobviousness (In re Hedges, 783 F.2d 1038, MPEP 2145). Applicants respectfully assert that where the combination of Maples and Kershner has been removed as precluding the combination, and where no new evidence of motivation has been provided, insufficient evidence establishing a motivation to combine the references has been presented particularly in view of the direct teaching away of Maples.

"It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art." *In re Wesslau*, 147 USPQ 391, 393. To maintain the rejection of Kershner in view of Maples, despite the reliance on Maples to navigate the proposed modifications to Kershner, is to ignore the clear teachings of Maples, which teaches away from the combination.

Impermissible Use of Hindsight Reconstruction:

At page 4 of the Office Action it is stated that Kershner and Applicant use the sulfonated aromatic polymer layer to impart water resistance while being vapor permeable and selective membrane, so therefore one working in the art would optimize the features taught in Kershner to arrive at the end result. First, Applicants assert that this is a conclusory remark, made without the benefit of evidence to support the basis for motivation to modify Kershner. Second, Applicants assert that in relying on the current specification to derive the motivation to optimize Kershner in a manner not suggested or taught by any evidence to date to get to the claimed invention, the Office is engaging in the impermissible use of hindsight reconstruction based on the teaching of Applicants' invention. The proper standard is what would have been obvious at the time the invention was made without the benefit of Applicants' specification, not what would be obvious in view of both the prior art and Applicants' specification. Applicants assert that outside of Applicants' instant specification, no objective evidence exists to suggest or teach (how) to select the range of sulfonation that simultaneously resists the passage of the chemicals specified in the claims while simultaneously providing high breathability.

The claims are outside of the range of sulfonation of Kershner and Kershner does not recognize these features. Since that which is not known cannot be obvious, Kershner cannot render the claims obvious. There must be some motivation outside of Applicants' specification to modify the cited art to get to Applicants' claims. No evidence of such motivation has been presented, nor has any reasonable likelihood of success. Kershner teaches increasing sulfonation to impart water-solubility; there is no suggestion to decrease sulfonation in a manner that provides both high breathability, chemical permeation resistance in a material that can be laminated with apparel fabric to form

protective apparel or enclosures. Kershner also teaches a litany of difficulties associated with practicing the disclosed polymer chemistry which is outlined in columns 7-9 clearly demonstrating the lack of reasonable expectation of success.

That Which Is Not Known Can Not Be Obvious:

At page 4 of the Office Action it is stated that "[i]t would have been obvious to have discovered the instantly claimed sulfonic acid equivalent weights..." Applicants respectfully assert that that which has yet to be discovered is not known, and if it is not known it cannot be obvious. Obviousness can only be predicated upon that which is known. Since neither reference disclose nor suggest the claimed range of sulfonic acid, fabric laminates comprising sulfonated aromatic polymers having the claimed sulfonic acid equivalent weight range for use in preventing the passage of toxic chemicals while having the claimed level of MVTR are not known or obvious. To further support the unobviousness of Applicants' claims, it is stated in the Office Action at the same page that "it would have been obvious to have discovered the instantly claimed sulfonic acid equivalent weights as the degree of sulfuric acid groups present is directly related to the hydrophilic nature of the material; the higher the concentration the more easy it is to allow water vapor to pass and give the desired vapor permeability." Where Applicants' claims recite a lower level of sulfonation than suggested by Kershner, not a higher level, the claims clearly are not obvious.

Where each dependent claim contains all of the limitations of the independent claims from which they depend (either directly or indirectly), Applicants believe that these claims, too, are patentable. Removal of the rejection is therefore respectfully requested.

Double Patenting

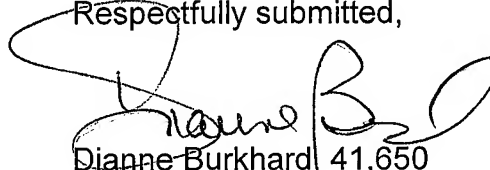
Claims 1-6, 8, 10-14, 16-19, 24-26, 28-34, 36-41, 43-47, 53-59, and 61-68 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10, 15, 16, 18-28, 30, 32-41, 43-47, and 49-52 of copending Application No. 10/818,214. Although the conflicting claims are not identical, they are not patentably distinct from each other because both articles are directed to moisture vapor transmissive protective laminates comprising an aromatic sulfonated polymer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Therefore, Applicants respectfully assert that upon successful prosecution of the pending claims, Applicants will consider filing a terminal disclaimer to overcome the double patenting rejection.

Conclusion

For the foregoing reasons, the present invention as defined by the claims is neither taught nor suggested by any of the references of record. Accordingly, Applicants respectfully submit that these claims are now in form for allowance. If further questions remain, Applicants request that the Examiner telephone Applicants' undersigned representative before issuing a further Office Action.

Respectfully submitted,



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